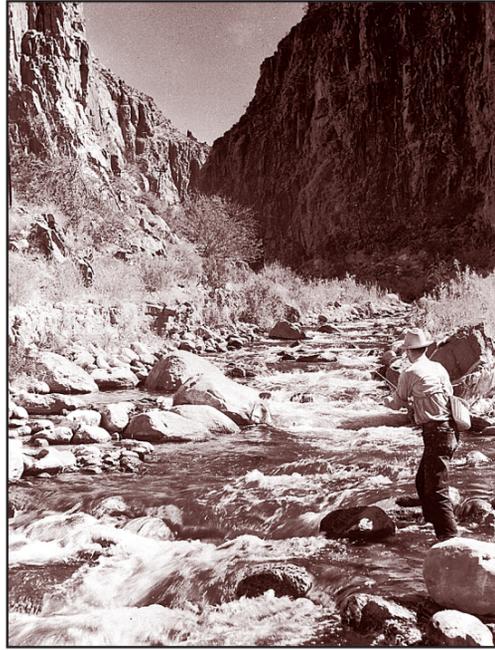


Bright Angel Creek



Follow the stone steps from the campground down to the creek. This is a good place to rest, soak your feet, and observe the stream. Most of the water in Bright Angel Creek comes from Roaring Springs, located 3,800 feet/1,200 meters below the North Rim. As park visitation increases, so does the demand for water. More water is then diverted to the transcanion pipeline from Roaring Springs, and the creek's flow is diminished. This has been especially visible in recent years; annual park visitation now approaches five million people. The network of plants and animals that are dependent on the creek's steady flow suffers from the loss.

Above Photo: Fishing Bright Angel Creek, circa 1941.
NPS photo

The Colorado

Like Bright Angel Creek, the Colorado River and adjacent habitat have changed considerably in recent years.

Exit the campground at the north end, cross the creek, and continue south to the boat beach near the Kaibab Suspension Bridge. If it is winter, you'll likely see people fishing. Notice the thick vegetation around you and the color of the river. Try soaking your feet. Most of the year the water temperature averages 45°F (7° C). This is very different from the environment that existed here prior to the 1960s. Why?

Many dams presently impound the Colorado River to provide inexpensive and relatively clean hydroelectric power to growing urban populations. Since Glen Canyon Dam was constructed 100 miles/160 kilometers upriver in 1963, much change has occurred. Water is released through the dam from 200 feet/60 meters below the surface of Lake Powell, the reservoir formed behind the dam. Water from this depth remains cold year-round. Nonnative rainbow and brown trout, introduced by the National Park Service many years ago, now thrive in the cold, clear water. These waters have become one of the most productive trout fisheries in Arizona.

Water volume released through the dam is carefully regulated, reducing seasonal variations in flow. In the absence of spring floods, riparian vegetation has flourished. Native flora such as mesquite, catclaw acacia, willow, and Apache plume thrive, as do nonnative species such as tamarisk, which typically colonizes disturbed areas. With its long root system, tamarisk secures a foothold as it competes with native plants for nutrients in the soil. The resulting mix of native and nonnative species sustains a large animal population.

What color is the river today? Consider yourself lucky if it is muddy and truly *colorado* (a Spanish word meaning "reddish"). Historically muddy, today the river is usually clear and green. Though floodwaters from tributaries below the dam sometimes tint the river, most of the sand and silt traditionally transported by the river now accumulates behind the dam. Sunlight penetrates the clear river allowing algae to grow. Introduced crustaceans that feed on the algae are, in turn, a food source for trout. Recently, bald eagles have come to prey on trout, and now eagles nest at Grand Canyon in increasing numbers.

Other changes are less benign. Native species of fish are proving unable to adapt to the altered river and are either endangered or already extirpated from Grand Canyon. Most require warm backwater marshes to reproduce. These environments are increasingly rare due to the lack of spring flooding since the dam began operation. Loss of habitat and extinction of life-forms is more than a local concern—it is one of the greatest threats facing the world today.

A net loss in river sediments has reduced the size of beaches. In an effort to mediate the effects of the dam, federal and state agencies have experimented with water flows, releasing varying amounts of water into the river below the dam. The resulting changes to the riparian environment are temporary. Determining appropriate water flows from the dam may lessen some of its negative effects, but as long as the dam remains, native fish and streamside vegetation will be impacted.

Everyone's Responsibility

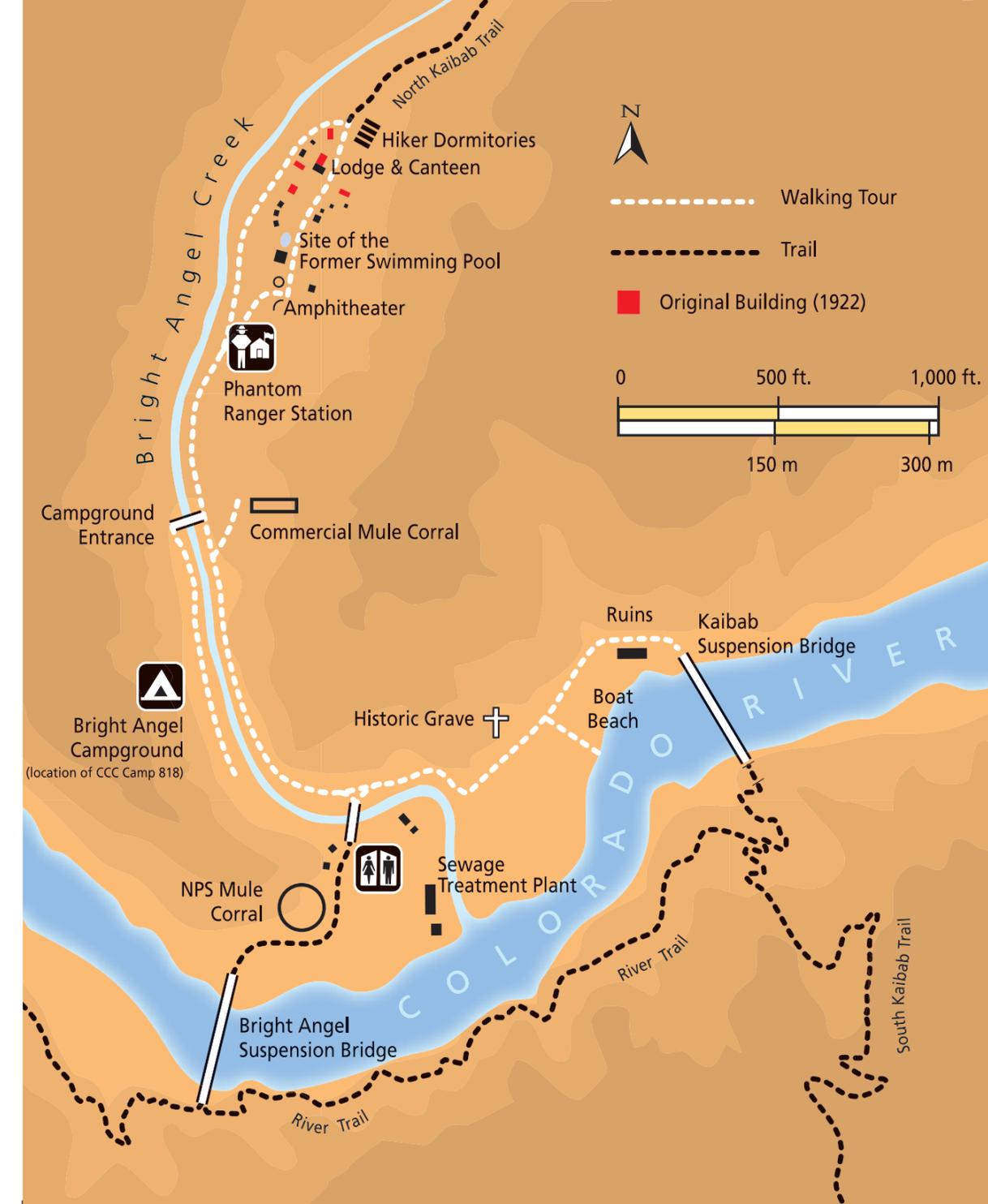


The Phantom Ranch area is unique, a last vestige of riparian habitat in Arizona. It also boasts a long history of human occupation. In some ways it has remained remarkably unchanged—still remote, still accessible only by foot, mule, or river. But it is a dynamic environment. Phantom Ranch and Bright Angel Campground, like the rest of the park, are under tremendous pressure from public use. Demand for use far exceeds the carrying capacity of the fragile desert and riparian environments. National Park Service rangers at Phantom Ranch, challenged to provide for the enjoyment of the visitor and the ecosystem around you, have embraced numerous strategies. You also play an important role. Do your part. Stay on trails. Don't feed the animals. Carry out your trash.

Share in the responsibility of preserving this area and the greater Grand Canyon. As a national park it is part of the heritage we all must protect. Your presence, as the presence of those before you, shapes this inner canyon region. All who pass through here are accountable for its future.

Above Photo: The Phantom Ranch Canteen as it looks today. NPS photo by Michael Quinn

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National Park Service
U.S. Department of the Interior



Grand Canyon National Park
North Rim

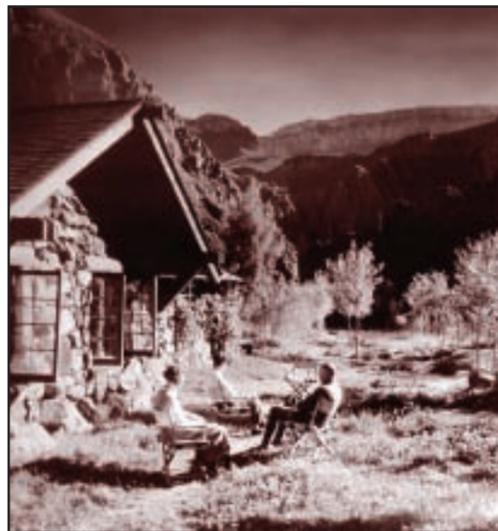
Phantom Ranch

A Walking Tour



Phantom Ranch

Grand Canyon National Park



Top Photo: Visitors in front of original Phantom Ranch main lodge building, circa 1922. Notice the size of the cottonwood trees. NPS photo

Bottom Photo: The former swimming pool may be a future archeological site. In 1972 the pool was back-filled with anything considered unusable at the time—obsolete oil-burning stoves, extra doors, a pool table, and even a piano. NPS photo by George Grant

Welcome to Phantom Ranch. Having descended more than a vertical mile below the rim of Grand Canyon, you have reached the bottom of one of the largest canyons in the world. Carved by the Colorado River and sculpted by water from innumerable storms, the canyon reveals an unparalleled record of Earth's history in the cliffs above you. The dark walls in your immediate vicinity, metamorphic schist, are close to two billion years old, nearly half the age of planet Earth.

Erosional forces formed the watery oasis that is the setting for Phantom Ranch and Bright Angel Campground. The creek and river create a lush riparian (streamside) habitat in the midst of the desert—one of few such habitats remaining in Arizona. Many species of insects, amphibians, birds, mammals, and plants thrive in this moist environment.

Though a remote and rugged setting, the Phantom Ranch area has long been a destination for humans. People have modified this area for thousands of years to make the inner canyon more accessible, to make it “home.” Today Phantom Ranch, like the rest of Grand Canyon National Park, represents a mix of natural processes touched by human intervention.

Your Historic Walking Tour

Begin your walking tour at the Kaibab Suspension Bridge. Observe the site of an Indian pueblo 54 yards/50 meters north of the bridge. Perhaps three or four families lived here for 30 to 40 years, hunting and farming where the ranch buildings stand today. The ancestral Puebloan people who their descendants, the Hopi, call *Hisatsinom*, lived throughout Grand Canyon for hundreds of years. Dating from approximately A.D. 1050 to A.D. 1140, the site reminds us that we are not the first to discover this inner canyon oasis.

Visited by nonnative people only sporadically since the sixteenth century, the canyon has seen rapidly growing numbers of tourists in the past 100 years. The completion of the Santa Fe Railroad line to the South Rim in 1901 allowed for regular visitation. This, in combination with the primitive inner canyon trail network, a legacy of late nineteenth-century mining efforts, provided a means for inner canyon travel.



Rust's Camp

Stroll northward from the pueblo site toward Phantom Ranch. Locate the commercial mule corral opposite Bright Angel Campground. Here, in 1903, David Rust built a small ramada, pitched several tents, and called it Rust's Camp. The modest construction was an important step toward development of this area and attracted growing numbers of tourists. It was not long before the Fred Harvey Company and Santa Fe Railroad had plans for a “luxury” guest ranch to replace Rust's tent camp.

Phantom Ranch

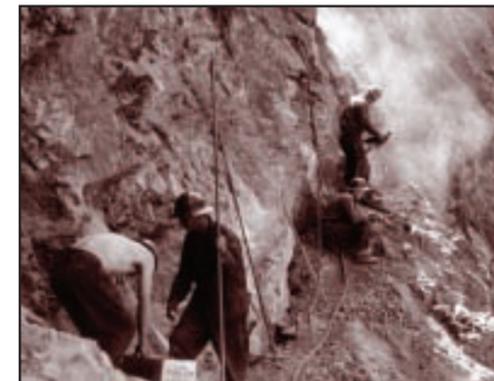
Designed by Mary Colter and constructed in 1922, Phantom Ranch provided food, lodging, and comfort against an austere backdrop. Continue north to Phantom Ranch and wander among the cabins. Look for those built mostly of stone. These four cabins and the north half of the lodge constituted the Phantom Ranch of 1922. Within ten years the remaining cabins were completed, the lodge enlarged, a recreation center built (the employee bunkhouse today), and the shower house constructed.

Left Photo: Rust's Tent Camp, date unknown. D.D. Rust Collection

Above Right: The CCC blasted the cliff face to create the River Trail, completed in 1936. NPS photo

Far Right: Browsing mule deer are frequently seen at Phantom Ranch. NPS photo

The Great Depression



In 1933 President Franklin Roosevelt established the Civilian Conservation Corps (CCC) to provide jobs during the Great Depression. CCC Camp 818 was established where Bright Angel Campground is today. The CCC played an enormous role in the development of the inner canyon; their work forever changed the nature of the area.

Notice the boggy patch north of the employee bunkhouse where tall grass still grows today. The CCC excavated a swimming pool by hand on this spot in 1934, and reaped the benefit of the pool, as did visitors for many years. Subject to flash flood damage, overuse by growing numbers of hikers, and increasingly stringent water-quality laws, the pool was back-filled in 1972.

Most of the cottonwood trees you see are remnants of stands planted by Rust or the CCC. The Clear Creek Trail and River Trail were CCC projects, as were Bright Angel Campground, the National Park Service mule corral, River Ranger Station, Rock House Bridge, and the transcanyon telephone line.

A Growing Concern

Phantom Ranch continued to grow in response to growing numbers of hikers. Electricity arrived in 1966, putting the noisy and unreliable generator to rest for good. Visitors could count on evaporative coolers in the summer and heat in the winter. The transcanyon pipeline from Roaring Springs, completed in 1970, provided chlorinated drinking water to campground and ranch visitors, as well as all facilities on the North and South Rims. In 1981 a state-of-the-art sewage treatment plant was completed at the mouth of Bright Angel Creek as the only responsible answer to the needs of large numbers of visitors. Commercial operations expanded as well to include a canteen and four modern dormitories for hikers.

Increased visitation necessitated an inner canyon park ranger force. By the 1960s a year-round ranger presence was established to provide medical assistance, law enforcement, and education for visitors. The National Park Service trail crew works year-round, as they have since the 1920s, to keep the North and South Kaibab and Bright Angel Trails free of rockslides.

Use & Impact

Maintained trails and accommodations, in a virtually inaccessible wilderness, afford hiking opportunities for unprecedented numbers of visitors. But accessibility exacts a price—with each development the area around you is further removed from its natural setting. Consider the pressure your very presence has on the inner canyon. Once-wild animals now depend largely on handouts for food. Ringtails, squirrels, mice, and deer may eat your unattended food instead of foraging.

Deer can often be seen in the mule corral as well, feasting on hay and grain. The inner canyon deer population may be unnaturally large due to these dietary supplements.



In response, rangers have taken measures to encourage all animals to forage. Metal food storage boxes are provided in each campsite to keep all food,

trash, and plastic bags out of reach of animals. Feeding animals is illegal and dangerous. Animals quickly become dependent on handouts. Deer kick and squirrels bite, and many wild animals carry diseases transmissible to humans.

Take a stroll southward to the campground, on the west side of Bright Angel Creek. Note the welded wire fencing around all cottonwood trees. Beavers, native to Bright Angel Creek, utilized the trees for food and shelter. The trees now provide much-needed shade for hikers.

As you continue through Bright Angel Campground, observe the “reveg area” signs, placed where rangers have replanted native vegetation. The campground was once the sight of severe overcrowding and trampling. In 1981 a long-term revegetation project was started, and by 1983 a permit system was established enforcing strict use limits in all inner canyon camping areas. Please stay on designated paths to allow native plants to recover.